Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently Amended) ~~Method~~ A method for [[the]] thermomechanical treatment of steel rods, wherein the starting material is heated to a temperature above [[the]] a recrystallization temperature, austenitized, held for equalization of temperature, then deformed and finally quenched to martensite and tempered, said method comprising: ~~characterized by~~

starting [[out]] with a round steel rod; [[rods,]]

equalizing the heating temperature of ~~which is equalized~~ said rod over ~~the rod~~ its length; [[and]]

causing said rod to be ~~which then are~~ transformed by skew rolling, while remaining ~~approximately~~ substantially straight, [[so]] such that a predetermined twisting of the material in [[the]] a marginal area and a desired transformation gradient [[is]] are achieved over [[the]] a cross section of the rod, and ~~wherein,~~ whereby, after [[the]] a critical degree of transformation is exceeded, dynamic recrystallization processes take place; and [[,]]

reheating the rods ~~are reheated~~ to a temperature about Ac3, in order finally to be hardened and tempered.

Claim 2. (Currently Amended) ~~Method~~ The method of claim 1, wherein ~~characterized in that~~ the material is heated at a rate between 100° - 400°K/s.

Claim 3. (Currently Amended) ~~Method~~ The method of claim 1, wherein ~~characterized in that~~ the starting material is heated to a temperature between 700° and 1100°C.

Claim 4. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein the heating is performed inductively.

Claim 5. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein the equalization of the heating temperature of the rod takes place for at least 10 seconds.

Claim 6. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein the temperature difference over the length of the rod does not exceed 5 K.

Claim 7. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein the heating temperature of the rod is kept constant virtually up to its entry into the roll gap.

Claim 8. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein the transformation is performed by a single skew rolling ~~in one~~ step.

Claim 9. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein the skew rolling of the rod is performed with an average degree of degree of stretching λ of at least 1.3.

Claim 10. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 8, ~~characterized in that~~ wherein the maximum transformation in the marginal area amounts to between 0.65 and 1.0 times the diameter of the rod and ψ is at least 0.3.

Claim 11. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein, in the skew rolling, a maximum local temperature elevation of 50°K is not exceeded.

Claim 12. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein the direction of the twisting of the structure in

the marginal region of the particular round rod corresponds to the main direction of tension of a component stressed by torsion.

Claim 13. (Currently Amended) ~~Method~~ The method of claim 12, ~~characterized in that~~ wherein the direction of twist of the structure in the marginal region, with respect to the axis of the round rod, amounts to 35 – 65 degrees of angle.

Claim 14. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein the structural distribution over the cross section of the finish-worked round rod leads to a property profile, which is adequate for the tension profile over the cross section in the case of flexural and/or torsional stress.

Claim 15. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein the skew rolling is performed in a temperature range of 700° - ~~100°C.~~ 1000°C.

Claim 16. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that the~~ wherein:

rolls of the skew rolling stand are adjusted in one of an [[the]] axial ~~and/or~~ and a radial direction during the transformation operation; and

[[the]] round rods are produced with a diameter [[,]] which varies over their length.

Claim 17. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein during a reheating above Ac3 following [[the]] skew rolling, a [[the]] temperature difference over the rod length is limited to a maximum of 5°K.

Claim 18. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that it starts out from~~ wherein said steel rods comprise spring steel.

Claims 19.-20. (Cancelled)

Claim 21. (Currently Amended) ~~Method~~ The method of ~~claims~~ claim 1, ~~characterized in that~~ wherein the skew-rolled, ~~approximately~~ substantially straight rod is wound into a coil spring.

Claims 22.-23. (Cancelled)

Claim 24. (Currently Amended) ~~Method~~ The method of claim 21, ~~characterized in that~~ wherein the winding and/or bending is performed hot after there crystallization and before the hardening and tempering.

Claim 25. (New) A method for thermomechanical treatment of steel rods, said method comprising:

starting with a round steel rod;

heating said steel rod to a temperature that exceeds a recrystallization temperature of steel of said rod; and

causing formation of a desired gradient in the degree of recrystallization of said steel of said rod over a cross section of said rod, with a marginal area having a fine-grained martensite structure, whereby said rod has a cross sectional strength profile that reaches a maximum value in said marginal area of said rod;

wherein said step of causing formation of said desired gradient comprises,

equalizing the temperature of said steel rod over its entire length;

maintaining said steel rod at said equalized temperature;

skew rolling said rod while it remains straight, said steel rod entering said skew rolling while it remains at said equalized temperature, whereby a predetermined twisting of said steel in said rod in said marginal area, and said desired gradient, are achieved.